CIRM RFA-07-01

Application # CL1-00500-1

STAFF ANALYSIS

FEASIBILITY:

Project Scope: The project will convert existing storage space to laboratory use. There is a detailed description of the proposed work. There also is an explanation of the need for modifications to the mechanical, electrical and plumbing systems, along with demising walls. Work on support systems is described, such as installing date cabling and emergency eye wash station. The plans provided in support of the project are fully developed architectural design development drawings with all design issues resolved including circulation and equipment placement.

The proposed improvements involve 2,000 gross square feet (gsf) encompassing 1,904 assignable square feet (asf). The difference between gross and assignable would be the thickness of the walls since there is no circulation or non-assignable space involved in the project. A rough take-off from the drawings confirmed the square footages provided.

Project Management: The proposal identifies construction management processes that are in place at the institution with institutional management support to address problem areas.

COST:

There is a line-item budget that includes 38 categories of expense to substantiate the construction amount of $800,413. Carpentry and laboratory casework represent about 15 percent of the project costs. Plumbing, HVAC and electrical work constitute more than 50 percent of the cost of the project. This percentage is consistent with typical laboratory-intensive alteration projects. Finishes, including walls and ceilings, and other miscellaneous work make up the balance of the estimate. There is an allowance of $30,000 for engineering by the contractor and an additional internal contingency amount of $25,000. The inclusion of these items in the construction amount is unusual but may have been included due to the very low design fee budget. A modest amount has been budgeted for institutional-based work mainly for demolition work. The design fees, administrative costs and project contingency represent 12 percent of the construction amount which is within the RFA budget guideline of 25 percent.

The overall cost per asf for the renovation work is $472. To convert this to a comparable figure for gross square feet (gsf) in a typical research-intensive building, one would assume an overall building efficiency of assignable-to-gross area of 60 percent. Thus, the 1,904 asf would equate to 3,173 gsf considering the full complement of building space (e.g. the gross building area including circulation and support) constructed to support the area to be renovated. Using this calculated gross area, the cost per gsf would amount to $283/gsf. This cost measure ($/gsf) provides a more meaningful comparison to new laboratory building construction costs. An analysis of recent projects indicates that the

average cost for new laboratory construction would be about $600/gsf, excluding land and site utilities. This amount would vary widely within California, but is being used in this review as an indicator of new construction value for comparative purposes. Based on this comparison, the renovation work represents about 47 percent of the cost of new laboratory space. General funding guidelines for capital investments throughout the state indicate that costs should not exceed about 65 percent of new construction in order to be considered a reasonably good investment to provide new hESC laboratory space.

The applicant indicates that the shared laboratory would be able to accommodate the NIH-free laboratory space needs for 18 institutional-based Principal Investigators (PIs). However, the space would also be used for the Stem Cell Techniques Course. Based on the ratio of operations and maintenance costs prorated between the shared laboratory and the techniques course, the course use represents about 10 percent of the activity in the laboratory. Thus, assuming 90 percent of the total cost is for the shared laboratory use, the cost per PI is for total construction is $45,000 considering only the institutional-based PI's. Based on CIRM funding only (construction and equipment) the cost per institutional-based PIs is $84,224.

The applicant has also committed to addressing any cost overruns that may arise.

TIMELINE:

The applicant began planning for the project in December 2006. The project schedule indicates that preliminary plans and working drawings have been completed and a construction contract is to be awarded in April 2007. The plan is to complete construction by August 2007, which is consistent with the amount of work to be performed.

We note that there may some complexity in administering this grant given that the work will be well underway or even completed by the time the award is made. The grant management office will need to confirm that all conditions of the grant as indicated in the Grants Administration Policy have been met. This would include confirming that all past work is consistent with grant requirements for prevailing wage and other construction-related requirements. The Facilities Working Group will need to consider any special conditions that may apply to those applications where construction is being undertaken on an accelerated basis prior to the award.

INSTITUTIONAL COMMITMENT:

The applicant indicates that $379,009 will be provided as institutional matching funds. This amount represents 25 percent of the construction and equipment grant funding request, and exceeds the minimum matching requirement of 20 percent of the grant amount.

HISTORICAL PERFORMANCE:

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Data for three projects undertaken between 2004 and 2006 and ranging in cost from $1.3 million to $4.4 million were submitted as information on historical performance. The data indicate that actual project budgets were very close to the original budgets, and actual scheduled completion dates were one or two months later than the original scheduled completion. The number of change orders range from 7 to 26.
The applicant indicates that there has been only one laboratory renovation project undertaken in the last two years in the cost range of $1million to $5 million. Thus, this review relies only on the information provided for the three projects.

RESPONSIVENESS:

Shared Laboratory: The applicant indicates that there are 18 researchers based at the host institution that are planning to undertake hESC research activities once additional NIH-free space is available. An additional 11 PI's are cited as being potential users of the facility. Some of these potential users will overlap with other shared laboratory applications in this area.

Techniques Course: The applicant has requested funding under Part 1 for operation of a shared research laboratory and a techniques course. The Part 2 application addresses only renovations for the shared research laboratory. We assume that the planned techniques course will share the laboratory space. The Facilities Working Group should determine whether funding of the shared laboratory is a very good investment for CIRM given that there would be no additional capital or equipment funding required accommodating the techniques course.

Facilities Working Group Issues:

- How will the Facilities Working Group (FWG) address funding for work that is completed prior to the approval of a grant when the RFA limits funds spent prior to approval for use as matching funds not for reimbursement?
- How will the Facilities Working Group determine whether funding of the Techniques Course is a very good investment for CIRM given that there would be no additional capital or equipment funding required to accommodate the techniques course.

The grant management office will need to confirm that all conditions of the grant as indicated in the Grants Administration Policy have been met. This would include confirming that all past work is consistent with grant requirements for prevailing wage and other construction-related requirements. This includes confirmation that equipment funds are budgeted pursuant the Grants Administration Policy as adopted December 7, 2006.